

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings of claims in the application:

Listing of Claims:

- 1 1. (Currently Amended) A computer-implemented method for generating a
2 luminosity compensated image, the method comprising:
3 defining a luminosity texture having a plurality of luminosity texels;
4 converting pixel data for an underlying image to an image texture having a
5 plurality of image texels;
6 blending the image texture onto a target surface having a shape;
7 blending the luminosity texture onto the target surface, thereby generating
8 luminosity compensated pixel data for the image that is stored in the computer; and
9 providing a user interface enabling a user to modify the shape of the target
10 surface, wherein defining the luminosity texture includes automatically updating one or more of
11 the luminosity texels in response to a user modification of the shape of the target surface.

- 1 2. (Original) The method of claim 1, wherein the target surface comprises a
2 polygon having a plurality of vertices, at least one of the vertices being associated with one of
3 the image texels of the image texture.

- 1 3. (Original) The method of claim 1, further comprising:
2 providing the luminosity compensated pixel data to a display device.

- 1 4. (Original) The method of claim 3, wherein providing the luminosity
2 compensated pixel data to the display device includes:
3 storing the luminosity compensated pixel data in a frame buffer; and
4 subsequently scanning out the frame buffer data, thereby providing data to the
5 display device.

1 5. (Original) The method of claim 1, wherein each luminosity texel includes
2 a scaling factor.

1 6. (Original) The method of claim 5, wherein blending the luminosity
2 texture onto the target surface includes:

3 selecting one of the luminosity texels; and
4 multiplying a pixel value from the target surface by the scaling factor of the
5 selected luminosity texel.

1 7. (Original) The method of claim 5, wherein the scaling factors define a
2 luminosity gradient to be applied across an area of the image.

8 - 9. (Canceled)

1 10. (Previously Presented) The method of claim 1, wherein automatically
2 updating one or more of the luminosity texels includes computing a luminosity scaling factor
3 based on a distance to a location on the target surface that maps to the texel.

1 11. (Original) The method of claim 10, wherein the distance is determined
2 from a depth coordinate of the location on the target surface.

1 12. (Original) The method of claim 1, wherein the luminosity texture includes
2 a low luminosity region.

1 13. (Original) The method of claim 12, wherein the low luminosity region
2 corresponds to an overlap region in an image to be displayed using a plurality of display devices
3 configured to display overlapping image elements.

1 14. (Original) The method of claim 1, wherein the luminosity texture includes
2 dark texels for forming a visible pattern superimposed on the underlying image.

1 15. (Previously presented) The method of claim 14, wherein the visible
2 pattern corresponds to a textual message readable by a user.

1 16. (Original) The method of claim 1, further comprising:
2 providing a user interface enabling a user to define the luminosity texture.

1 17. (Original) The method of claim 16, wherein the user interface further
2 enables the user to save the luminosity texture to a file.

1 18. (Original) The method of claim 17, wherein the user interface further
2 enables the user to select a previously saved luminosity texture file to be applied.

1 19. (Original) The method of claim 16, wherein the user interface further
2 enables the user to modify the luminosity texture.

1 20. (Original) The method of claim 1, wherein each luminosity texel includes
2 an independent scaling factor for each of a plurality of color components.

1 21. (Original) The method of claim 20, wherein the plurality of color
2 components includes a red component, a green component, and a blue component.

1 22. (Previously Presented) A graphics processing system comprising:
2 a texture generation module configured to convert pixel data for an underlying
3 image to an image texture having a plurality of image texels;

4 a texture memory configured to store the underlying image texture and a
5 luminosity texture having a plurality of luminosity texels;

6 a multistage texture blending module configured to blend each of the image
7 texture and the luminosity texture onto a target surface having a shape, thereby generating
8 luminosity-compensated pixel data for an image;

9 a user interface module configured to receive a user instruction modifying the
10 shape of the target surface; and

11 a luminosity compensation module configured to automatically update the
12 luminosity texture stored in the texture memory in response to the user instruction modifying the
13 shape of the target surface.

1 23. (Original) The graphics processing system of claim 22, wherein the target
2 surface comprises a polygon having a plurality of vertices, at least one of the vertices being
3 associated with a texture coordinate of the image texture.

1 24. (Original) The graphics processing system of claim 22, further
2 comprising a frame buffer configured to store the luminosity-compensated pixel data.

1 25. (Original) The graphics processing system of claim 22, further
2 comprising scanout control logic configured to provide the luminosity-compensated pixel data to
3 a display device.

1 26. (Original) The graphics processing system of claim 22, wherein each
2 luminosity texel includes a scaling factor.

27 - 28. (Canceled)

1 29. (Previously Presented) The graphics processing system of claim 22,
2 wherein the luminosity compensation module is further configured to compute an updated value
3 for a texel of the luminosity texture based on a distance to a location on the target surface that
4 maps to the texel.

1 30. (Original) The graphics processing system of claim 29, wherein the
2 distance is determined from a depth coordinate of the location on the target surface.

1 31. (Original) The graphics processing system of claim 22, wherein the
2 luminosity texture includes a low luminosity region.

1 32. (Original) The graphics processing system of claim 31, wherein the low
2 luminosity region corresponds to an overlap region in an image to be displayed using a plurality
3 of display devices configured to display overlapping image elements.

1 33. (Original) The graphics processing system of claim 22, wherein the
2 luminosity texture includes darkened texels forming a visible pattern.

1 34. (Previously Presented) The graphics processing system of claim 33,
2 wherein the pattern corresponds to a textual message readable by a user.

1 35. (Original) The graphics processing system of claim 22, further
2 comprising a user interface module configured to enable a user to define the luminosity texture.

1 36. (Currently Amended) A computer program product comprising:
2 a computer readable medium encoded with program code for controlling
3 operation of a computer system to generate a luminosity compensated image, the program code
4 including:

5 program code for defining a luminosity texture that includes a scaling
6 factor for each of a plurality of luminosity texels;

7 program code for converting pixel color values of an underlying image to
8 an image texture having a plurality of image texels;

9 program code for blending the image texture onto a surface having a
10 shape;

11 program code for blending the luminosity texture onto the target surface,
12 thereby generating luminosity compensated pixel data for the image;

13 program code for providing a user interface enabling a user to modify the
14 shape of the target surface; and

15 program code for updating the scaling factor for each luminosity texel
16 based on the modified shape of the target surface.

1 37. (Original) The computer program product of claim 36, wherein the
2 computer readable medium comprises a magnetic storage medium encoded with the program
3 code.

1 38. (Original) The computer program product of claim 36, wherein the
2 computer readable medium comprises an optical storage medium encoded with the program
3 code.

1 39. (Original) The computer program product of claim 36, wherein the
2 computer readable medium comprises a carrier signal encoded with the program code and
3 adapted for transmission via a network.

1 40. (Original) The computer program product of claim 36, wherein the
2 program code further includes program code for providing a user interface enabling a user to
3 define the luminosity texture.

1 41 - 42. (Canceled)

1 43. (Previously Presented) The method of claim 2, wherein the user
2 interface comprises a handle for repositioning a vertex of the polygon.

1 44. (Previously Presented) The method of claim 1, wherein the updated
2 luminosity texels provide a second image with a more uniform brightness from one edge of the
3 second image to another edge of the second image.

1 45. (Previously Presented) The graphics processing system of claim 23,
2 wherein the user interface module is configured to receive a repositioning of at least one vertex
3 of the polygon.

1 46. (Previously Presented) The graphics processing system of claim 22,
2 wherein the updated luminosity texture provides a second image with a more uniform brightness
3 from one edge of the second image to another edge of the second image.

- 1 47. (Previously Presented) The computer program product of claim 36,
- 2 wherein the updated luminosity texels provide a second image with a more uniform brightness
- 3 from one edge of the second image to another edge of the second image.